

# Download Root X Derivative

The derivative of the square root of a function is equal to the derivative of the radicand divided by the double of the root. Example. The derivative of a square root can also be expressed as: This lesson will show how to find the derivative of the square root of  $x$ . We will then look at two different ways to check our work: one involving limits and the other involving integrals. 2017-05-14 To differentiate the square root of  $x$  using the power rule, rewrite the square root as an exponent, or raise  $x$  to the power of  $1/2$ . Find the derivative with the power rule, which says that the inverse function of  $x$  is equal to  $1/2$  times  $x$  to the power of  $a-1$ , where  $a$  is the original exponent. In this case,  $a$  is  $1/2$ , so  $a-1$  would equal  $-1/2$ . Simplify the result. The Derivative Calculator supports computing first, second, ..., fifth derivatives as well as differentiating functions with many variables (partial derivatives), implicit differentiation and calculating roots/zeros. You can also check your answers! Interactive graphs/plots help visualize and better understand the functions.